

REMARKS

By the present amendment, independent claims 3 and 7 have been amended to further clarify the concepts of the present invention. More particularly, claims 3 and 7 have been amended to clarify the step of applying a protective mask on the insulation deposited in the element partitioning trench in terms of fully covering the element partitioning trench. Support for these amendments may be found, among others, in Fig. 3d as well as page ten of the subject specification. In addition, claims 9 and 10 have been added, these claims corresponding generally to claims 3 and 7, respectively.

By a separate sheet attached hereto, the fee necessitated by the presentation of additional independent claims has been calculated and a check in that amount is enclosed. Entry of these amendments is respectfully requested.

In the Office Action, claims 3-4 were rejected under 35 USC § 103(a) as being unpatentable over the patent to Zhang et al in view of the newly cited patent to Krivokapic et al. In addition, claim 5 was rejected under 35 USC § 103(a) as being unpatentable over the above patents to Zhang et al and Krivokapic et al in view of the patent to Schoenfeld et al. Also, claim 6 was rejected under 35 USC § 103(a) as being unpatentable over the above patents to Zhang et al, Krivokapic et al and Schoenfeld in view of the patent to Kuroi

et al. Further, claims 7 and 8 were rejected under 35 USC § 103(a) as being unpatentable over the above patents to Zhang et al and Krivokapic et al in view of the patent to Kuroi et al.

In making these rejections based on the above patents to Zhang et al and Krivokapic et al, it was asserted as before that the cited Zhang et al patent teaches the method as claimed except for depositing the oxide insulation in the trenches by performing HDPCVD. The Krivokapic et al patent was then asserted to teach forming an insulating oxide layer in a trench using HDPCVD. It was concluded that it would be obvious to use HDPCVD in the method of the Zhang et al patent since the Krivokapic et al patent teaches HDPCVD is self-planarizing and thus facilitates subsequent production steps. Reconsideration of these rejections in view of the above claim amendments and the following comments is respectfully requested.

Since the amendment to claim 3 which further distinguishes the claims over the Zhang et al patent is applicable to independent claim 7 as well, claim 7 has been amended in a similar fashion. It is submitted that the processes as now presently claimed are not taught or suggested by the cited patents to Zhang et al and Krivokapic et al, whether taken singly or in combination.

The Zhang et al patent shows the use of mask 60 in Figs. 3A and 3B. It is to be specifically noted the width of the mask 60 is less than that of the STI trench 42. That is, the mask 60 does not fully cover the STI trench 42. Independent claims 3, 7, 9 and 10 have been amended herein to recite that the protective mask fully covers the element partitioning trench. Therefore, the Zhang et al patent fails to teach or suggest, among other things, this required claim limitation. In addition, the Zhang et al patent does not appear to teach or suggest the mask 60 at any alternative location or size. Consequently, it is submitted that it would not be obvious to a person skilled in the art to relocate or resize the mask 60 as taught by the Zhang et al patent. It is further submitted that the Krivokapic et al patent, nor the additionally cited patents, do not supply the teaching deficiencies of the Zhang et al patent. Accordingly, a person having ordinary skill in the art would have no motivation to modify any combination of the Zhang et al and Krivokapic et al patents so as to achieve the presently claimed invention.

For the reasons stated above, withdrawal of the rejections under 35 U.S.C. § 103(a) and allowance of claims 3 through 10 as amended over the cited Zhang et al and Krivokapic et al patents alone or in any combination with the additionally cited patents are respectfully requested.

In view of the foregoing, it is submitted that the subject application is now in

condition for allowance and early notice to that effect is earnestly solicited.

In the event this paper is not timely filed, the undersigned hereby petitions for an appropriate extension of time. The fee for this extension may be charged to Deposit Account No. 01-2340, along with any other additional fees which may be required with respect to this paper.

Respectfully submitted,

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